

## 2002 GIS Survey Results

Presented at the CDC Lead  
Surveillance Meeting, St. Petersburg,  
Florida, September 24-26, 2002

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## Project Contributors

- Jerry Curtis, CDC: Idea, Logistics
- Bob Scott, Michigan CLPPP: Questionnaire Design
- John Braggio, Oklahoma CLPPP: Questionnaire Analysis
- Lead Programs: 35 Submitted Completed Questionnaires

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## Questions

1. What GIS program(s) have you used (past and current)?
2. What have you done, successfully, with GIS in the recent past?
3. What are you currently working on with GIS?
4. What do you expect to work on in the future?
5. What would you like to do with GIS—if you had unlimited resources of time, money, ability, and cooperative partnerships?

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## Questionnaire Analysis

- Open-ended format
- Quantify written answers into categories
  - Results reported as totals and percentages
- Additional post-hoc analyses
  - Healthy People 2010 GIS Objective(s) 23-3
  - Geographic polygon resolution, e.g., county, zip code, census tract, etc.
  - Novel ways to use GIS in lead surveillance, prevention, sharing of data and maps

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## Advantages and Limitations of Open-Ended Questionnaires

- Advantages
  - Respondent Permitted to Answer Question as Interpreted
  - New Ideas
  - General Trends
  - Factual Basis for Decision Making
- Limitations
  - Unable to Evaluate Specific Issues
  - Post-Hoc Response Categories
  - Quantification Bias

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## Question 1: GIS Programs

- Past
  - ArcView, ArcInfo, ArcMap, N=18, 51%
  - MapInfo, N=6, 17%
  - Maptitude, N=4, 11%
  - None, N=4, 11%
  - Other, N=3, 9%
- Current
  - ArcView, ArcInfo, N=25, 71%
  - Other, N=4, 11%
  - None, N=4, 11%
  - MapInfo, N=1, 3%
  - Maptitude, N=1, 3%

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## Question 2: Past GIS Use

- Multiple Goals, N=17, 49%
- Goals Not Reached, N=8, 23%
- Prevalence, N=7, 20%
- Find High Risk Areas, N=2, 6%
- Find High Risk Groups, N=1, 3%

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## Question 3: Current GIS Use

- Update Files, N=8, 23%
- Multiple Projects, N=7, 20%
- Find High Risk Areas, N=6, 17%
- No Project, N=5, 14%
- Other Projects, N=3, 9%
- Make Maps, N=2, 6%
- Find High Risk Groups, N=2, 6%
- Learning GIS, N=2, 6%

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## Question 4: Future GIS Use

- Find High Risk Areas, N=10, 29%
- Multiple Projects, N=7, 20%
- Dissemination, N=6, 17%
- Screening/Surveillance, N=4, 11%
- Prevention, N=3, 9%
- Analytical, N=2, 6%
- None Planned, N=2, 6%
- Find High Risk Groups, N=1, 3%

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## Question 5: Ideal GIS Project

- Analytical, N=13, 37%
- Multiple Projects, N=10, 29%
- Other, N=6, 17%
- Find High Risk Areas, N=2, 6%
- None Planned, N=2, 6%
- Find High Risk Groups, N=1, 3%
- Prevention, N=1, 3%

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## Healthy People 2010, GIS Objective(s) 23-3

- GIS Use (Past, Current, Future, Ideal), N=30, 86%
  - Geocoding, N=25, 71%
    - Geocoding (Question 2B, Past, CT/BG), N=14, 40%
    - Audience Poll: ~50%
  - Dissemination, N=19, 54%
  - Target Specific Geographic Areas, N=27, 77%
  - Analytical, N=28, 80%
  - Confidentiality, N=3, 9%

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## Novel GIS Use Award

- Patient Confidentiality
  - Hazel Brown, Duval County, Florida
  - Nancy K. Van Voorhis, Virginia
- Historical Analysis of Prevalence and Lead Risk Factors
  - Martha Low, Minnesota
  - Carol McDonough, Pennsylvania
  - Thomas Plant, Boston
- Environmental Investigations as Map Layer
  - Russell Dynes, Delaware
- ArcIMS Intranet and Internet GIS Sites
  - Jason Smith, Missouri
- Spatial Analysis Model for Lead Poisoned Children
  - Ed Norman and Tina Ward, North Carolina

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## Conclusions

- Most Lead Programs Are Using (or Will Be Using) GIS In Lead Surveillance and Prevention Activities
  - 2002 GIS Survey, 86% (Past, Current or Future Use)
  - 2001 GIS Survey, 68% (Current Use)
- GIS Assistance Available from CDC
  - Geocoding
  - 2000 US Census Files (Lead Risk Variables)
  - GIS Boundary Files
  - GIS Instruction
  - Assistance With Individual Projects
  - Other?
- Role of GIS in Lead Prevention During this Decade?
- Confidentiality?

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